

Claims

1. A method for connecting a plurality of remote applications with a data source, the method comprising:
- providing at least one interface module configured to interface with a remote application;
 - providing at least one port module configured to interface between the interface module and the data source;
 - providing a connection manager to facilitate the interface between the interface module and the port module; and
 - establishing a direct connection between the interface module and the port module.
2. The method of claim 1, further comprising initializing the connection manager.
3. The method of claim 1, further comprising establishing a connection between the connection manager and the port module.
4. The method of claim 1, further comprising returning a port module identifier for an available port module to the interface module for directly connecting the interface module and the port module.

Sub A27

- 1 5. The method of claim 1, further comprising authorizing a connection between the
2 interface module and the connection manager.
3
- 4 6. The method of claim 1, further comprising authorizing a connection between the
5 port module and the connection manager.
6
- 7 7. The method of claim 4, wherein the step of returning a port module identifier for
8 an available port further comprises the steps of:
9 determining which port modules are associated with each data source and
10 storing a data source identifier in a data structure;
11 identifying each port module by a port module identifier and storing the
12 port module identifier in a data structure; and
13 determining the availability for each port module and storing an
14 availability status for each port module in a data structure.
15
- 16 8. The method of claim 7, where in each data structure is an array.
17
- 18 9. The method of claim 7, further comprising, storing the port module identifier for
19 each available port module in a queue.
20
21

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21

- 6-27 A²7
10. The method of claim 7, further comprising retrieving data from the data source responsive to a command from the requesting application.
11. The method of claim 9, wherein the queue is a first-in-first-out array.
12. The method of claim 9, wherein the port module identifier for a port module that is no longer available is removed from the queue.
13. The method of claim 9, further comprising returning the first port module identifier placed in the queue.
14. The method of claim, 13 further comprising converting the command to a structured query language format to support interfacing with the data source.
15. The method of claim 13, further comprising inserting data into an HTML format to support interfacing between the requesting application and the data source.
16. The method of claim 13, further comprising repeating the preceding for each additional data source query.

Sub A² 7

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18
- 19
- 20
- 21

17. The method of claim 16, further comprising disconnecting the remote application from the interface module.

- Sub A-7
- 1 18. A computer readable medium having stored thereon computer executable
2 instructions for performing a method for connecting a plurality of remote
3 applications with a data source, the method comprising:
4 providing at least one interface module configured to interface with a
5 remote application;
6 providing at least one port module to interface between the interface
7 module and the data source;
8 providing a connection manager to facilitate the interface between the
9 interface module and the port module; and
10 establishing a direct connection between the interface module and the port
11 module.
12
13 19. The computer readable medium of claim 18, wherein the method further
14 comprises initializing the connection manager.
15
16 20. The computer readable medium of claim 18, wherein the method further
17 comprises authorizing a connection between the interface module and the
18 connection manager.
19
20
21

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21

- Sub A² 7
21. The computer readable medium of claim 18, wherein the method further comprises authorizing a connection between the port module and the connection manager.
22. The computer readable medium of claim 18, wherein the method further comprises establishing a connection between the connection manager and the port module.
23. The computer readable medium of claim 22, wherein the method further comprises returning a port module identifier for an available port module to the interface module for directly connecting the interface module and the port module.
24. The computer readable medium of claim 23, wherein the method further comprises of steps of determining which port modules are associated with each data source and storing a data source identifier in a data structure, identifying each port module by a port module identifier and storing the port module identifier in a data structure, and determining the availability for each port module and storing an availability status for each port module in a data structure.
25. The computer readable medium of claim 24, wherein each data structure is an array.

[illegible]

Sub $A^2 \frac{1}{2}$

26. The computer readable medium of claim 24, wherein the method further comprises, storing the port module identifier for each available port module in a queue.
27. The computer readable medium of claim 26, wherein the queue is a first-in-first-out array.
28. The computer readable medium of claim 26, wherein the port module identifier for a port module that is no longer available is removed from the queue.
29. The computer readable medium of claim 26, further comprising returning the first port module identifier placed in the queue.
30. The computer readable medium of claim 24, wherein the method further comprises retrieving data from the data source responsive to a command from the requesting application.
31. The computer readable medium of claim, 30 wherein the method further comprises converting the command to a structured query language format to support interfacing with the data source.

2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21

32. The computer readable medium of claim 30, wherein the method further comprises inserting data into an HTML format to support interfacing between the requesting application and the data source.
33. The computer readable medium of claim 30, wherein the method further comprises repeating steps 18 through 28 for each additional data source query.
34. The computer readable medium of claim 30, wherein the method further comprises disconnecting the remote application from the interface module.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

29

30

31

32

33

34

35

36

37

38

39

40

41

42

43

44

45

46

47

48

49

50

51

52

53

54

55

56

57

58

59

60

35. A system for connecting a plurality of remote applications with a data source, the system comprising:

an interface module configured to interface with a remote application;
a port module configured to interface between the interface module and the data source; and
a connection manager module configured to facilitate a direct interface between the interface module and the port module.

36. The system of claim 35, further configured to initialize the connection manager.

37. The system of claim 35, wherein the connection manager is configured to authorize the interface between the interface module and the connection manager.

38. The system of claim 35, wherein the connection manager is configured to authorize the interface between the port module and the connection manager.

39. The system of claim 35, wherein the method further comprises establishing a connection between the connection manager and the port module.

- 4-17 A-7
- 1 40. The system of claim 35, wherein the connection manager establishes a connection
2 between the connection manager and the port module.
3
4 41. The system of claim 40, wherein the port module is programmed to report its
5 availability to the connection manager.
6
7 42. The system of claim 41, wherein the connection manger is configured to return a
8 port module identifier for an available port module to the interface module for
9 directly connecting the interface module and the port module.
10
11 43. The system of claim 35, further comprising a data structure for storing which port
12 modules are associated with each data source.
13
14 44. The system of claim 35, further comprising a data structure for storing a port
15 module identifier identifying each port module.
16
17 45. The system of claim 44, wherein the data structure is an array.
18
19 46. The system of claim 35, further comprising a data structure for storing an
20 availability status for each port module that is available for establishing a
21 connection to the data source.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21Sub A² 7

47. The system of claim 46, wherein the data structure is an array.

48. The system of claim 35, wherein the interface module is configured to support HTML and provide interfacing between the requesting application and the data source.

49. The system of claim 35, wherein the interface module is configured to convert the command from the remote application to a structured query language format to support interfacing with the data source.

Add A³ 7Add B³ 7